dimensional positions of each reflected point on the object. Also, a distance $Z(i, j)$ between the sensor and the reflection point $(i, j)$ on the object is obtained and stored in the RAM39 of the image processing apparatus 30. Thus, the image data is obtained as two-dimensional arrangement data including the distance data $Z(i, j)$ between the sensor and the reflection point on the object, as shown in FIG. 9.

Please AMEND the paragraph that begins at page 19, line 20, as follows:

If it is determined in Step 204 that an object having a matching value equal or greater than the set value with respect to any of the reference models is detected, the procedure proceeds to Step 207 to perform matching processing on the two-dimensional data of the detected workpieces W, using every taught mode. In Step 208, the reference model having the most large matching value in the pattern matching processing is selected, and the relative position/posture of the workpiece W with respect to the camera 21 is determined based on the first-sensor relative position/posture, i.e., the relative position/posture of the camera and the reference workpiece stored for the selected reference model, and position, rotation angle and scale of the image of the workpiece in the matching processing. Also, data of the workpiece-robot (second sensor) relative position/posture associated with the selected reference model, which represent the position/posture of the second sensor 22 to be situated with respect to the workpiece are read from the nonvolatile memory 38 (Step 208).

Please AMEND the paragraph that begins at page 21, line 1, as follows:

The position/posture of the second visual sensor 22 to be situated for a subsequent operation in the world coordinate system is determined based on the determined position/posture of the detected workpiece W in the world coordinate system and the workpiece-robot (second sensor) relative position/posture data (approach vector) (Step 210). The processor 31 operates the robot to situate the second visual sensor 22 to have the determined position/posture, and outputs a measuring command to the second visual sensor 22 (Step 211).

Please AMEND the paragraph that begins at page 21, line 26, as follows:

In the case where a stack of the workpieces can not fall within the field of view of the